CC:96-45 JN FYI cc AMD

For the Children

COLVILLE SCHOOL DISTRICT

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EX PARTE OR LATE FILED

June 11, 1996

CC Docket No. 96-45

The Honorable Reed Hundt
Chairman
Federal Communications Commission
1919 M Street, NW, Room 814
Washington, DC 20554

Dear Chairman Hundt:

On behalf of the Colville School District Board of Directors, I would like to urge the Federal-State Joint Board and the FCC to adopt rules that fully aggressively implement the universal service provisions of the Telecommunications Act of 1996 for schools and libraries. I also support the comments filed by the National School Boards Association, et. al. A copy of their comments is enclosed.

Specifically, I urge the FCC to include for deep discounts a range of telecommunications services that will give my district more affordable access to the Internet as well as to interactive, voice, data and video capability necessary for distance learning. It is also important that these services be provided directly to the classroom, where the learning actually takes place. Finally, I urge the Commission to address the affordability needs of both the capital expenses of services and the ongoing costs.

The Colville School District serves 2500 students from a remote, rural Northeast Washington area 65 miles north from Spokane, Washington and 25 miles south from the Canadian border.

Our telecommunications infrastructure services three elementary and three secondary schools as well as our district office. We are running a district-wide Novel network with four servers over an ethernet network connected to a

fiber optic backbone district-wide. Each site has one or more Lanett intelligent hubs and Local Talk routing.

We are a multi-platform environment supporting a combination of 600+ Macintosh and DOS/Windows compatible systems district-wide. District-wide we provide electronic mail, student data systems, and software specific to independent disciplines. We distribute library resources such as encyclopedias, atlas' card catalog services and a CD-ROM tower with numerous K-12 reference materials.

On the fiscal side of our telecommunications system, we are connected via dial-up links to the Educational Service District 101 VAX.

We run our own AT&T Definity 75 PBX that delivers phone services to each classroom and office in the school district as well as voice mail.

Soon to come on line, as soon as funding allows, will be Internet and WWW services to all of our classrooms and offices district-wide. Each site now has one dial-up connection to the Internet and WWW donated by Internet Xpress, a local Internet provider.

Our district has been fortunate to install its basic infrastructure through bond and levies. Our infrastructure progress now is painfully slow. The costs of full Internet and WWW connections in each classroom district-wide, as well as the servers, backup devices, computers, printers and peripheral items needed to move into the next era of education and the information age is staggering. The support and management of these systems as well as the need for ongoing professional training and development of curriculum specific to these technologies continues to be an escalating concern.

New costs connected with telecommunications are a way of life. Funds necessary to develop and sustain these systems are not generally factored in to the formula from Washington state.

Numerous benefits as a result of enhanced technology are constantly being realized in our district. Streamlined voice and data systems on the management side are excellent timeservers. Information on students for teachers, administrators, and parents can be called up instantly from any administrative computer in the district. Central "in time" delivery systems of research materials to our students allow them to have materials at hand when they need them which provides for increased motivation. Many research and reference materials can be called up on computers in classrooms from our central delivered systems. Soon the materials will be available from the Internet and WWW instead of students leaving classrooms to go to the library for these same materials. Remedial, as well as advanced curriculum to the classroom via software, is beginning to equalize the learning level in the

classroom. Our teachers are able to have sophisticated teaching materials at their fingertips and dispense them via laserdisk, CD-ROM and video sources. All in all, technology in the classroom is critical to ensuring that our children can be successful in a high-tech world.

We sincerely urge the Commission to adopt regulations that will assist us in bringing the broadest range of educational technology to our schoolchildren.

Sincerely,

Ellen Imsland

Ellen Imsland, President
Colville School District Board of Directors

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enclosure

c: Sharon Nelson, Chairman
Washington Utilities & Transportation Commission

EX PARTE OR LATE FILED

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of	)	
Federal-State Joint Board on Universal Service	)	CC Docket No. 96-45

To the Joint Board:

JOINT COMMENTS OF
NATIONAL SCHOOL BOARDS ASSOCIATION, AMERICAN LIBRARY ASSOCIATION, INCLUDING THE AMERICAN ASSOCIATION OF SCHOOL LIBRARIANS, A DIVISION OF ALA, NATIONAL EDUCATION ASSOCIATION, CONSORTIUM FOR SCHOOL NETWORKING, COUNCIL OF CHIEF STATE SCHOOL OFFICERS, EDUCATION LEGISLATIVE SERVICES, INC., NATIONAL ASSOCIATION OF INDEPENDENT SCHOOLS, NATIONAL ASSOCIATION OF SECONDARY SCHOOL PRINCIPALS, AMERICAN FEDERATION OF TEACHERS, AFL-CIO, ASSOCIATION FOR THE ADVANCEMENT OF COMPUTING IN EDUCATION, NATIONAL ASSOCIATION OF ELEMENTARY SCHOOL PRINCIPALS, AMERICAN ASSOCIATION OF SCHOOL ADMINISTRATORS, AMERICAN PSYCHOLOGICAL ASSOCIATION, ASSOCIATION FOR SUPERVISION AND CURRICULUM DEVELOPMENT, COUNCIL FOR AMERICAN PRIVATE EDUCATION, COUNCIL FOR EDUCATIONAL DEVELOPMENT AND RESEARCH, EDUCATIONAL TESTING SERVICE, GLOBAL VILLAGE SCHOOLS INSTITUTE, NATIONAL ASSOCIATION OF STATE BOARDS OF EDUCATION, NATIONAL PARENTS AND TEACHERS ASSOCIATION, NATIONAL RURAL EDUCATION ASSOCIATION, TECHNOLOGY AND INNOVATIONS IN EDUCATION, TRIANGLE COALITION FOR SCIENCE AND TECHNOLOGY EDUCATION, AND UNITED STATES DISTANCE LEARNING ASSOCIATION

Summary

The joint commenters described in Appendix A, representing the interests of public and private schools and libraries, urge the Federal-State Joint Board to recommend that the Commission adopt rules fully and aggressively implementing the

statutory goals, the Commission should define special services broadly to include all the services necessary to ensure that schools and libraries have the ability to take advantage of all the benefits of advanced telecommunications for educational purposes.

Therefore, special services should include, at a minimum, local and long distance transmission services to provide two-way voice and data communication throughout the world, access to information services throughout the world, and additional services covered by Section 254(h). Such "covered services" include (i) unbundled broadband switching and transmission capacity capable of delivering high quality video; and (ii) classroom and library access, including high-speed, broadband circuits to the building "demarcation" point, and inside wiring to all classrooms, offices, libraries, and computer work stations.

Schools and libraries need, not particular technologies or technical solutions, but the ability to perform certain functions. The best approach will depend on what is practical and cost-effective in a given situation. For this reason, and to impose economic discipline on users, the Commission should include a full range of service options up to and including the highest level described above.

The 1996 Act does not specify how the discount for special services is to be calculated. The legislative history gives the Commission considerable flexibility in this regard. We propose a method that is based on the competitive market price or a surrogate for the market price for each service (if no such market price is readily ascertainable), and then provides for a discount from the competitive market price to

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Introduction

The joint commenters, representing public and private schools and libraries, urge the Federal-State Joint Board to recommend that the Commission adopt rules fully and aggressively implementing the full intent of the universal service provisions of the Telecommunications Act of 1996 (the "1996 Act"). We are encouraged by the breadth of the Commission's Notice of Proposed Rulemaking and Order Establishing the Joint Board (the "NPRM") initiating this proceeding, and we urge the Commission to establish a standard of service to schools and libraries that will provide the full benefit of advanced telecommunications at the most affordable price.

I. IN ADOPTING THE TELECOMMUNICATIONS ACT OF 1996, CONGRESS ACKNOWLEDGED THE IMPORTANCE OF EDUCATION TO THE FUTURE ECONOMIC DEVELOPMENT OF THE NATION.

New Section 254 of the Communications Act of 1934 goes beyond merely reaffirming the traditional role of universal service as a means of ensuring that all Americans enjoy the benefits of telecommunications technology, to call for a substantial expansion of that concept. The 1996 Act recognizes that it is no longer enough to ensure the availability of residential telephone service: The demands of today's global, competitive economy require that all schools and libraries have access to advanced telecommunications technology at affordable rates. As advanced technology spreads around the world, the key to future economic success is access to information and the skills needed to transform information into useful knowledge. And for the nation as a whole to succeed, the opportunity to acquire those skills must be available to all Americans. By enhancing the role of universal service, the 1996

in the schools, and increase the range of information available to library patrons.

To supplement paragraph 72 of the NPRM, we wish to point out some specific examples of improvements achieved through the use of telecommunications technology:

- Guilford County, North Carolina, has equipped all of its schools with interactive, broadcast-quality distance learning facilities, connected all of its classrooms with fiber optics, and installed an OC-3 fiber line to link its network to the public switched network. Attendance rates are up, discipline problems are down, and the County has reduced staff travel and the busing of students for special classes.[2]

- In Union City, New Jersey, the introduction of computers and Internet access has led to marked improvement in the English language skills of the student body, 75% of whom do not speak English at home. The use of e-mail has encouraged students to develop their writing skills, the ease of on-line research has improved the quality of research projects, and standardized test scores have gone from well below the state average to above average. KickStart Report at 37.

- The State of Maryland has developed "Sailor," a state-wide telecommunications infrastructure connecting public libraries across the state and allowing patrons remote access. Every Maryland resident can now reach the Internet and information about state and local events, affairs, and resources with a local phone call. KickStart Report at 52.

- The Southeast Kansas Interactive Distance Learning Network operates a fiber optic network that can carry up to 16 channels of video simultaneously, and has been used to conduct an interactive town hall meeting with the area's Congressman by linking ten school sites. In addition to increasing the range of available courses, the network has been used for special programs such as video conferences between American and Russian students. See articles attached as Appendix C.

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[2] United States Advisory Council on the National Information Infrastructure, KickStart Initiative, Connecting America's Communities to the Information Superhighway (January 1996) (the "KickStart Report"), at 36. A copy of the KickStart Report is attached as Appendix B. See also NSBA NII Awards Application (1995).

Report at 7. One study has forecast that by the year 2000 60% of jobs will require computer and advanced telecommunications skills. Id. Just as important, such jobs will pay 10-15% more than jobs that do not require those skills. Id. These facts alone justify the introduction of advanced telecommunications services into all schools and libraries as quickly as possible.

Providing all schools and libraries with the ability to impart these skills is not a luxury. If those institutions are to perform their functions properly, they must have the necessary facilities, or we will all pay a price. For instance, American businesses are already losing $25-30 billion a year through poor product quality, low productivity, and absenteeism attributable to the current lack of information literacy. America's Children at 7. Businesses spend additional sums training and retraining workers to the levels they need. Id. These expenses add to the price of products all Americans buy and make our products less competitive in the world market. In short, there is no doubt that proficiency with advanced telecommunications is already a critical job skill that must be distributed as widely as possible.

C. In Adopting the Snowe-Rockefeller-Exon-Kerrey Amendment, Congress Recognized that the Current Level of Technology Available in Most Schools and Libraries Is Inadequate, not just in Rural or High-Cost Areas, but across the Nation.

The above examples demonstrate what can be done, even in remote or low-income urban areas, by schools and libraries with access to the appropriate telecommunications technology. The vast majority, however, do not have access to the services necessary to provide similar opportunities in their communities. Furthermore, most of the examples involved substantial contributions from the private

improvement of external connections and internal networks. External connections are obviously critical, because they are the means for the delivery of information to and from the Internet and other sources. Schools face a problem familiar to anybody who has conducted on-line research from a home computer. As reported in the Wall Street Journal on December 27, 1995, it takes approximately 2.3 minutes to download a 2MB image over a typical residential 14.4 Kbps line. A more complex image requiring 16 MB would take 18.5 minutes, and a short video clip could take 1.4 hours. These are clearly not useful speeds. Even over a 56 Kbps line, a simple image takes 35.7 seconds. Few people -- and children least of all -- have the patience to sit in front of a computer terminal waiting for images to appear at such slow speeds. But fewer than 5% of schools have ISDN or T-1 connections; indeed, such connections may not be available at all to as many as one-third of all schools. McKinsey Report at 32-33. Thus, schools need dramatically improved transmission capacity.

Internal networks are equally important to the business of teaching and learning. All rooms in a school must be connected -- classrooms, libraries, labs and offices -- or even the best outside connections will be of little use. This allows for more spontaneity in the use of the technology, since it can then occur at any time during the school day and not just when a media center or lab is available, or during a weekly class visit to the library. For students to learn how to do research on-line and get the most out of that experience, they must have more than an occasional turn at the keyboard. And for parents, teachers and administrators to make the best use of e-mail and other services, all classrooms and offices must be connected to each

country share the benefits.

The Snowe-Rockefeller Amendment, embodied in new Section 254(h) of the Communications Act added by the 1996 Act, recognizes these deficiencies by expanding the concept of universal service to include access to advanced telecommunications services for schools and libraries. In the floor debate prior to passage of the 1996 Act, Senator Snowe said:

> Central to the concept of universal service is access for public institutions, which provide services to a broad segment of our population. We must ensure that key institutions in our society -- schools, libraries, and rural hospitals -- are also assured affordable access to telecommunications services. . . . If we want young people to actively use the technology of the future so it becomes second nature to them, then we must ensure that schools are part of the national information infrastructure.[8]

D. School- and Library-Based Networks Offer New and Enhanced Roles for Those Institutions as Learning Centers in Their Communities.

The 1996 Act offers a mechanism for schools and libraries to strengthen their roles in their communities, by serving as access points to provide all citizens with affordable access to information.

First, access to the Internet through schools and libraries -- or other access points such as community colleges and community centers -- can become a cost-effective way for the country to expand subscribership to all Americans, including those who cannot afford the proper equipment. Second, schools and libraries can become community hubs for those who do have the proper equipment. Parents can communicate better with teachers, and other residents can get quick,

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[8] Cong. Rec. S708 (Feb. 1, 1996).

[emphasis added]. But subsection (c)(1)(C) does not say that only residential consumers may receive the benefit of those support mechanisms, and Principle (3) plainly refers to all consumers in rural and high cost areas, as well as low-income consumers. NPRM at ¶¶ 71, 82. In other words, schools and libraries, as consumers of telecommunications services, are entitled to a reduced rate for those services that the Commission decides to include within the definition of universal service. Some would recommend free core services for schools and libraries and this recommendation deserves further study.

B. The 1996 Act Requires Provision of Additional "Special Services" to Schools and Libraries at Discounted Rates to Assure "Affordable" Access and Use.

Special services must be provided to schools and libraries at affordable rates. Principle (6) provides that libraries and schools, including classrooms, "should have access to advanced telecommunications services as described in subsection (h)." Subsection (c)(3) authorizes the Commission to "designate *additional* services for such support mechanisms ... for the purposes of subsection (h)." [emphasis added]. The legislative history indicates that under subsection (c)(3) the Commission is to define universal service more expansively ("different" and "separately") for schools, libraries, and health care facilities.[10]

Subsection (h) provides for preferential and affordable rates to schools and libraries. See Conf. Rpt. at 133. Subsection (h)(1)(B) refers to a request for "any of

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[10] See Conf. Rpt. at 131, 133. Despite the conference report's use of the phrase "public institutional telecommunications users," subsection (h)(5) (Definitions) clearly includes private schools.

A. Special Services Should Include All Telecommunications Services Up to and Including Those Available Today at the More Advanced Schools and Libraries.

Some schools and libraries have already installed advanced telecommunications networks. There will always be innovators who move ahead of the pack -- but their current efforts set the norm for tomorrow. As the innovators leave a technology behind, the majority adopts the old cutting edge as the standard. The Commission should take this phenomenon into account in defining special services. By the time the Commission adopts a standard and educational institutions have begun to implement the standard, the leaders will have moved on to something else. By adopting the current standard available at the more advanced institutions, however, the Commission will ensure that the definition of special services is not outmoded before it has even been implemented. This is important because demand for bandwidth tends to increase as users learn to depend on the technology. See Lyndes Decl.

If a service is available now in the more advanced schools and libraries, it must be incorporated into the special service standard to ensure that adequate educational services are available to all parts of the Nation. If the Commission adopts anything less, it will be establishing a standard that will deny most schools and libraries affordable access to services that will shortly be the de facto standard for those with the resources to implement it. Otherwise, most schools and libraries will always be two steps behind, and the central purpose of the legislation will not be achieved. Moreover, if a service is commercially available in an area, there should be a

"Classroom" model is the same as the Partial Classroom model, except that all classrooms would have five computers, all of which would be connected to the LAN.

The KickStart Report also proposes a model for libraries that is the equivalent of the "Lab" model for schools, except that libraries in larger communities are presumed to have access to T-1 lines, and those in smaller communities are presumed to have access to ISDN or standard telephone service.

The covered services proposed above are similar to those included in the "Partial Classroom" and "Classroom" models, with three exceptions. First, the two KickStart models include computer hardware and other terminal equipment, which we have not included in our proposed definition of special services. Second, those models also call for provision of content, professional development and systems operations support, much of which we envision will be provided in conjunction with computer hardware contracts or through other mechanisms. And third, rather than including a T-1 line or its functional equivalent, special services should be defined as encompassing true broadband capability.[12]

Examples of current state-of-the-art functionalities already being used in some schools -- which support the proposed definition of special services set forth above -- are attached as Appendix K. These examples demonstrate that some schools are already using higher bandwidth connections than any of the KickStart models call for. In all cases, however, the 1996 Act requires institutions in all parts of the country to have access to reasonably comparable service if they desire it. Thus, in the case of

[12] See Appendix J for a discussion of implementation costs.

Finally, the Commission must ensure that the requirements of special needs populations are also met by the definition of special services. The foregoing definition is broad enough to accommodate the requirements of such technologies as TTY and TDD, but the Commission should consider whether the terminal equipment and services associated with those and successor technologies should be incorporated into the definition of special services.

B. The Definition of Special Services Should Evolve over Time and Should Be Technologically Neutral.

Section 254(c)(1) defines universal service as an evolving level of service, and the definition of special services should also evolve over time. Otherwise, schools will again find themselves unable to provide students with the level of technology training they require. As noted above, the cutting edge will continue to advance, and the de facto standard will advance with it, although always somewhat behind. Thus, the Commission and the Joint Board must periodically reexamine the standard as telecommunications technology evolves. We propose that the standard be reviewed and, if necessary, revised, every four years.

In addition, the Commission should not impose particular technological solutions. As telecommunications technology advances and competition develops among telecommunications providers, different approaches and opportunities will arise. Libraries and schools are primarily concerned with the ability to meet the needs of patrons, students, teachers and other stakeholders, not with favoring particular technologies. It makes no difference to an educational institution whether its traffic is carried by a cable operator or a wireless carrier, so long as it can perform its

V. THE PROPOSED PRICING MECHANISM FOR "SPECIAL SERVICES."

The 1996 Act does not specify how the rate for special services is to be calculated. The legislative history gives the Commission considerable flexibility in this regard.[14] We propose a method that is based on the competitive market price or a surrogate for the competitive market price for each service (if no such price is readily ascertainable), and then provides for a discount from the competitive market price to a level that will ensure affordability to the large majority of schools and libraries. We further propose to allow the carrier, at such time as sufficient data is available, to establish a floor for the rate for a particular service at the Total Service Long-Run Incremental Cost (TSLRIC) of providing that service. Finally, to ensure that the goals of the legislation are met, we also propose an additional lifeline subsidy to schools and libraries in very poor areas.

A. The Rate for Special Services Should Be Based on a Market Rate.

The price of special services should follow this general rule: The price paid by a school or library should not exceed the least of (i) the carrier's present-day rate or current bid, (ii) the lowest price "charged for similar services to other parties," or (iii) a market-based price, discounted to assure affordability.

The general rule ensures that service providers cannot use the benchmark rate as an excuse to raise rates if they are already offering or have negotiated lower rates.

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[14] Incremental cost was the only standard reported by the Senate Committee. When the term "discount" was introduced, Senator Snowe explained that the changed was intended to offer more flexibility to ensure affordability. 141 Cong. Rec. S 7984 (June 1995) (daily ed.).

potential user community. This discount is large enough to ensure that schools and libraries in most rural, insular and high cost areas will be able to afford service. The corresponding regulatory body would gather data based on current prices being paid by schools and libraries to establish a demand curve or each special service. As systems subscribe to each service, the data would be refined and the price point recalculated at regular intervals. Carriers would have the opportunity to demonstrate to the regulating body that the incremental cost of providing the service exceeded the discounted rate. The carrier would be compensated for any such difference between the 95% affordability price point and the carrier's TSLRIC, out of the universal service fund.

Rates in each area would be set after comparing bids received by the contracting agency to the competitive benchmark. If there is effective competition in a bidding area, the winning bid would be compared to the discounted national benchmark rate. If the competitively bid rate exceeds the discounted rate, the provider will be required to lower its price to the discounted rate. If the bid price is lower than the discounted rate, then the bid price will apply, under the general rule described above.

In areas where there is no effective competition, the discounted price should be based directly on the competitive benchmark for each service and basic service element. Any school district or library facing "above-discounted-benchmark" costs will get the service at the national benchmark price, less the discount.

Bids would be reviewed by the requesting entity or entities, again in accordance with local contracting procedures. The low bidder would receive the right to serve schools and libraries in that region at the discounted rate. If, however, the contracting agency had reason to reject the low bid on grounds permitted by its local procedures -- such as a past record of poor service -- the contracting agency could select a different service provider. To encourage low bidding by service providers, however, only the lowest qualified bidder would have the right to compensation from the universal service fund.

E. Under Either Rate Proposal, a "Safety Net" for Poor Schools and Libraries Would Reduce the Discounted Price Further To Ensure Affordability for All.

It is possible in some cases that even the discounted benchmark price or the TSLRIC rate will be too high for a very poor school district or library to be able to pay. In such cases, we propose an additional lifeline subsidy to ensure that all schools and libraries can afford special services.

The determination of which school and library districts are eligible for a lifeline subsidy would be based on family income in each school district, as determined by the Census Bureau, or some other appropriate state or federal formula. As a rough approximation, the Census data corresponds to the tax base available to support a school or library district's investment in telecommunications facilities. The lifeline subsidy would be available to schools and libraries situated within districts that are in the bottom 25% of all school districts, ranked according to median family income. In other words, the lifeline subsidy would be available to schools and libraries serving

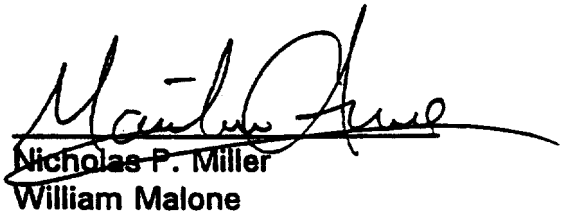
adopting appropriate pricing policies. Such policies could include marginal-cost pricing of transmission usage to access information services providers, postalized inter-city rates, and flat-rate service, in addition to implementation of Section 271(g)(2).

Other regulatory policies that should be considered to ensure access to services are requiring the unbundling of services to allow easier aggregation of service by school and library consortia, and mandating service by one or more local providers if nobody bids on a request for proposals issued by an eligible entity.

Conclusion

For the foregoing reasons, the joint commenters urge the Joint Board to recommend that the Commission adopt rules ensuring that all eligible schools and libraries have access to the broadest permissible range of services, at prices that will deliver the benefits of advanced telecommunications technology nationwide.

Respectfully submitted,



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